

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Work Order ID 157310

Friday, February 17, 2017 1:32:47 PM

157310

Page 2

Item ID: 646.9701 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Cutter Sub Assembly
Start Date: 2/23/2017 Start Qty: 3.00 ***3*** Cust Item ID:
Required Date: 3/10/2017 Req'd Qty: 3.00 ***3*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Identify as per dwg & Stock Location. <u>scat</u>	0.00							
140									
Packaging	Memo	0.00							
Packaging	***IDENTIFY AS PER IAW MPP-120***								
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	Memo	0.05							
Quality Control									

3 MAR 06 2017

17/3/8 JD

DAS
21
9-89

MAR 07 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Friday, February 17, 2017 1:32:46 PM

Page 1

157310

646 9701

Required Date: 3/10/2017

Required Qty: 3.00

IPP REV

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.9710		Manufactured	No			110	Each	14.0000	1	3			
646 9710									**			MAR 01 2017	
Body													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				cck012				14					
				<u>150127</u>				4					
				152187				10					
646.9711		Manufactured	No			110	Each	35.0000	2	6			
646 9711									**			MAR 01 2017	
Blade													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				CCK106				35					
				150119				6					
				152743				10					
				<u>152811</u>				10					
				153723				9					
MS27039-08-19		Purchased	No			110	Each	405.0000	6	18			
MS27039-08-19									**			MAR 01 2017	
Screw													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				155					
				m135948				155					
				ST277				250					
				<u>m136537</u>				100					
				m136851				150					

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By 		
							Lead hand / Supervisor Approval Verification 		
							QC / QA Coordinator Approval 		

Root Cause				FAULT CATEGORY			
☐ Environment	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
☐ Design	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
☐ Doc/Data	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
☐ Equip/Tooling	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
☐ Handling/Pre	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
☐ Material	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
☐ Internal Transport	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
☐ Tribal Knowledge	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
☐ LOA	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
☐ Substation	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
☐ Past Expiry Date	☐ Manufacturing Process	OTHER : _____					
☐ Misidentified	☐ Past Due						

Picklist Print

Friday, February 17, 2017 1:32:46 PM

Page 2

Work Order ID: 157310

157310

Parent Item: 646.9701

646 9701

Parent Item Name: Cutter Sub Assembly

Start Date: 2/23/2017

Required Date: 3/10/2017

Start Qty: 3.00

Required Qty: 3.00

NAS1149FN832P

Purchased

No

110

Each

1,187.000

12

36

NAS1149FN832P

Washer

**

MAR 01 2017

DAS

6

9-89

Location

Loc Qty

Loc Code

GA

564

M135058

232

M136182

332

ST263

623

M136182

623

36

MS21042L08

Purchased

No

110

Each

864.0000

6

18

MS21042L08

Nut

**

MAR 01 2017

DAS

6

9-89

Location

Loc Qty

Loc Code

GA

503

m135274

18

m135978

485

ST303

361

m136643

160

m136851

201

15

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

ENGINEERING CHANGE NOTICE NO.

05360

SHEET 1 OF 1

DWG NO. 646.9700

REV: D

PREPARED BY J. BECKER

DATE: 03/24/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: CUTTER SUB ASSY

APPROVED BY: ENGR *[Signature]*

MFG *[Signature]*

QC *[Signature]*

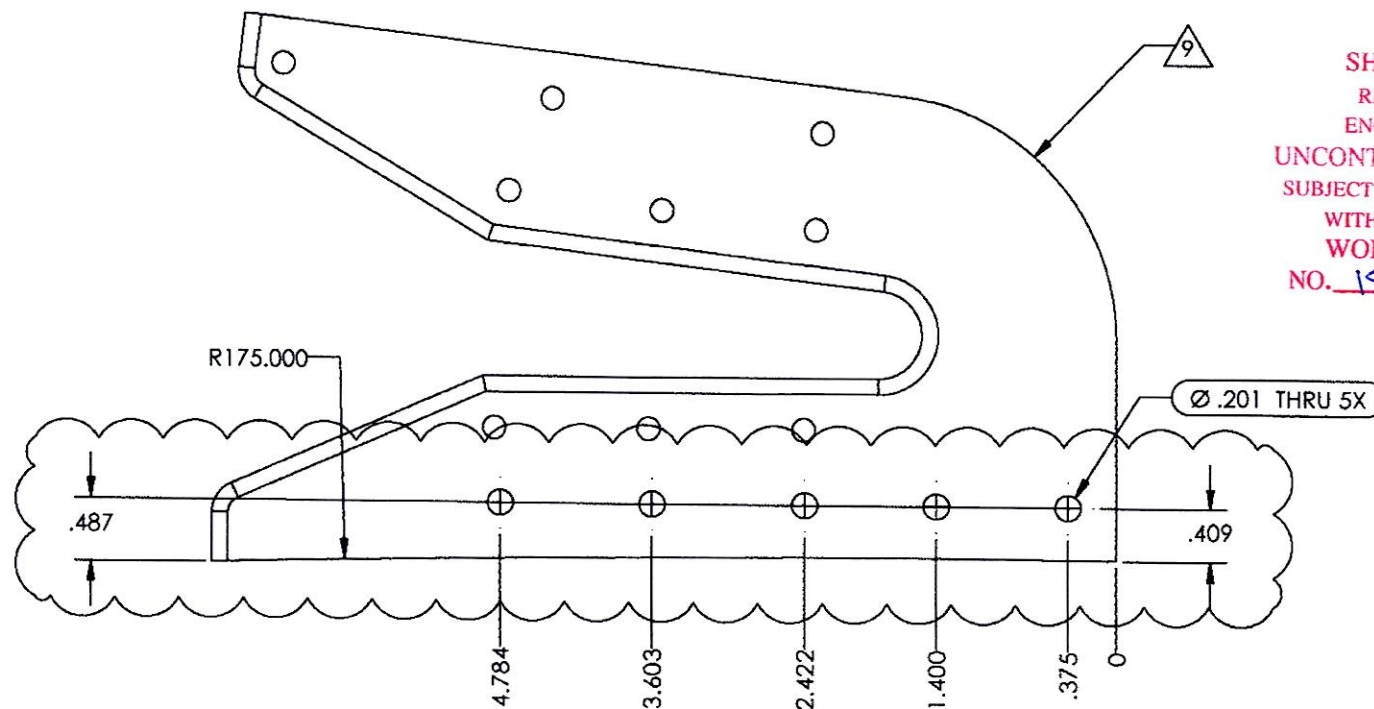
EFF. CURRENT ORDER

REASON: REVISED DIMENSIONS

ECR: N/A

ACTION ITEM:
1.

SHEET 7, ZONE C3 IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 157310 MLC

17-02-22

DOCUMENTS EFFECTED:

☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

☐ YES ☒ NO



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05345

SHEET 1 OF 1

DWG NO. 646.9700

REV: D

PREPARED
BY

J. GARDINER

DATE: 03/15/16

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: CUTTER SUB ASSY

APPROVED BY:

ENGR.

MFG

QC

EFF.

CURRENT ORDER

TRANSACTION CODES (TC):

A-ADD
R-REVISE

C-CREATE
D-DELETE

REASON: REVISED NOTES

ECR:

N/A

ACTION ITEM:

1.

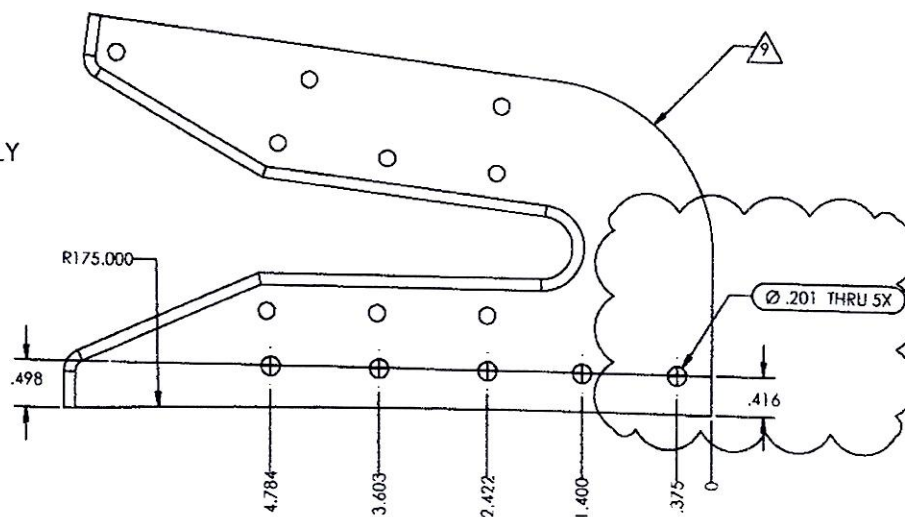
SHEET 1, ZONE A6 IS:

NOTES:

IS

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH IAW MPP-172 SECTION 2.1, 3.3 & 4.3.
- 3 MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MPP-172 SECTION 3.3; 1-2 MIL MAX
5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
6. IDENTIFY IAW MPP-120
- 7 APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
- 9 ALL DIMENSIONS NOT SPECIFIED ARE CONTROLLED BY 646.9710.

SHEET 7, ZONE C5 IS:



DOCUMENTS EFFECTED:

☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

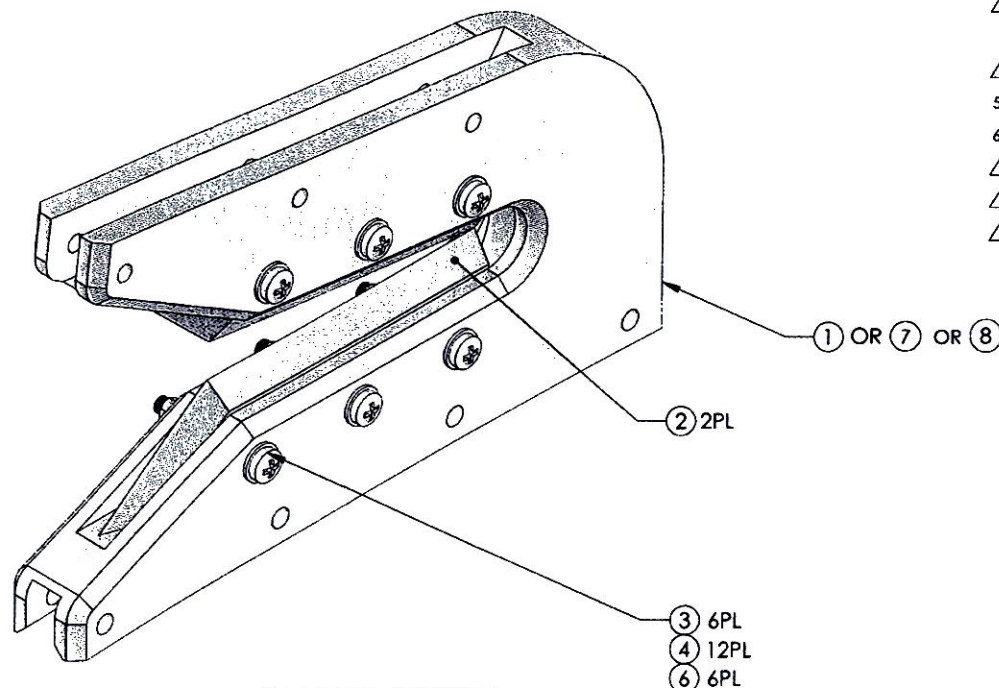
☐ YES ☒ NO

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
1	LAST PROTOTYPE REVISION - P02		INC
INC	INITIAL RELEASE	03/29/06	P. BRAVO
A	INCORPORATED ECN 00744-00898 03P12	06/06/13	P. BRAVO
B	INCORPORATED ECN 03P67	07/03/13	P. BRAVO
C	INCORPORATED ECN 04039	08/06/13	P. BRAVO
D	INCORPORATED ECN 03329	02/26/14	P. BRAVO

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH IAW MPP-172 SECTION 3.3 & 4.3.
- 3 MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MPP-172 SECTION 3.3; 1-2 MIL MAX
5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
6. IDENTIFY IAW MPP-120
- 7 APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
- 9 ALL DIMENSIONS NOT SPECIFIED ARE CONTROLLED BY 646.9710.



646.9701 SHOWN
646.9702 & 646.9703 TYP

UNINCORPORATED ECN(s)

05345, 05360,

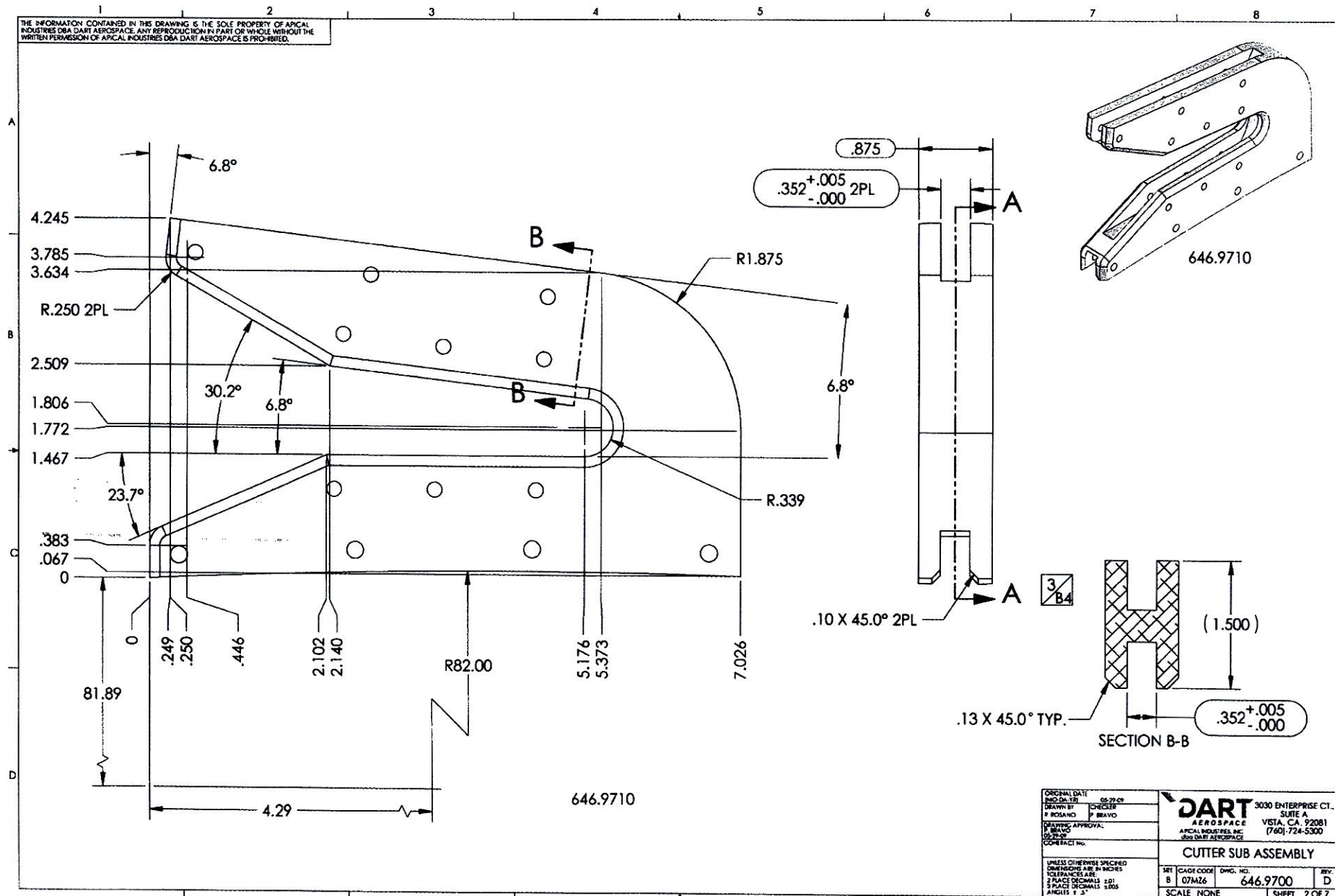
I			8	646.9713	BODY			
	1		7	646.9712	BODY			
6	6	6	6	601.1541	LOCKNUT	MS21042L08		
A/R	A/R	A/R	5	601.2045	RTV, LOCTITE 598			
12	12	12	4	601.2764	WASHER	NAS1147H832P		
6	6	6	3	601.2765	SCREW	MS27039-0819		
2	2	2	2	646.9711	BLADE			
			1	646.9710	BODY			
X				646.9703	CUTTER SUB ASSY			
	X			646.9702	CUTTER SUB ASSY			
		X		646.9701	CUTTER SUB ASSY			
9703	9702	9701	FIND #	PART #	DESCRIPTION	MATL	SPEC.	
QTY				PARTS LIST				
NEXT ASSY (S)				ORIGINAL DATE 03-29-06				
646.9600				DRAWN BY R. ROSANO				
				CHECKED BY P. BRAVO				
				DESIGNED BY P. BRAVO				
				CONTRACT NO.				
				UNLESS OTHERWISE SPECIFIED				
				DIMENSIONS ARE IN INCHES				
				TOLERANCES ARE:				
				7 PLACE DECIMALS ±.01				
				3 PLACE DECIMALS ±.005				
				ANGLES ± .5°				
				SCALE NONE				
				SHEET 1 OF 7				

DART 3030 ENTERPRISE CT., SUITE A
AEROSPACE VISTA, CA 92081
APICAL INDUSTRIES INC. (760)-724-5300
DBA DART AEROSPACE

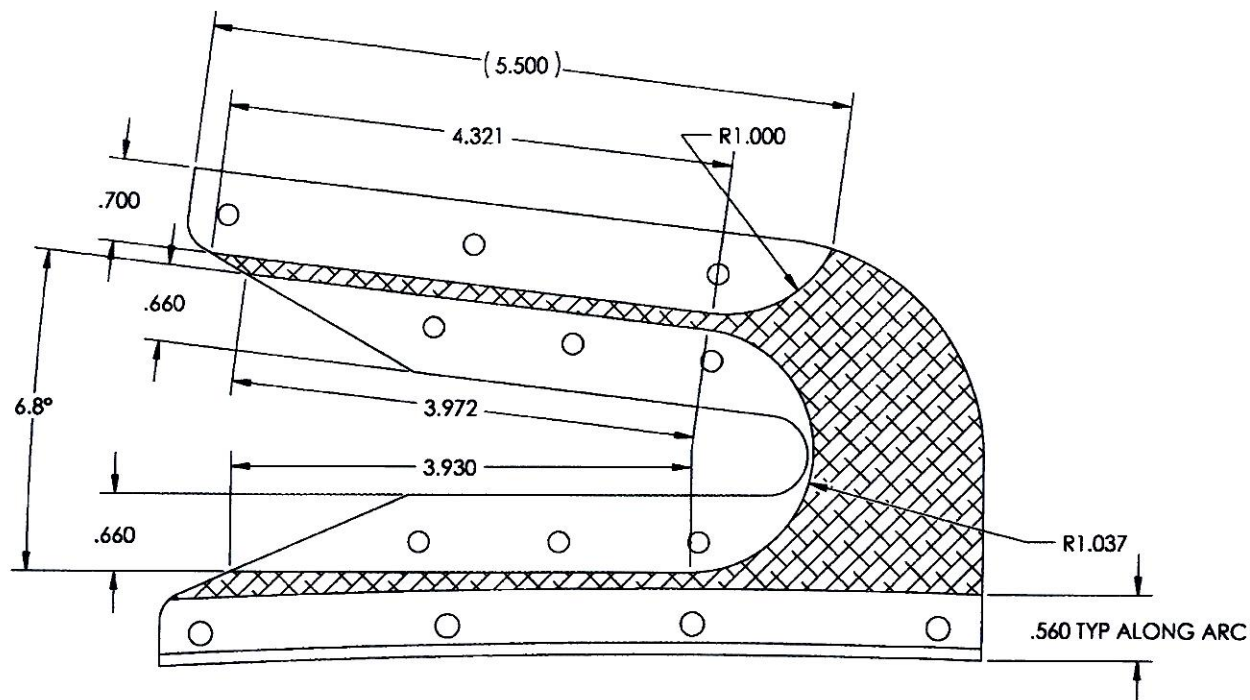
CUTTER SUB ASSEMBLY

SER CAGI CODE DWG. NO. REV
B 07M26 646.9700 D

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

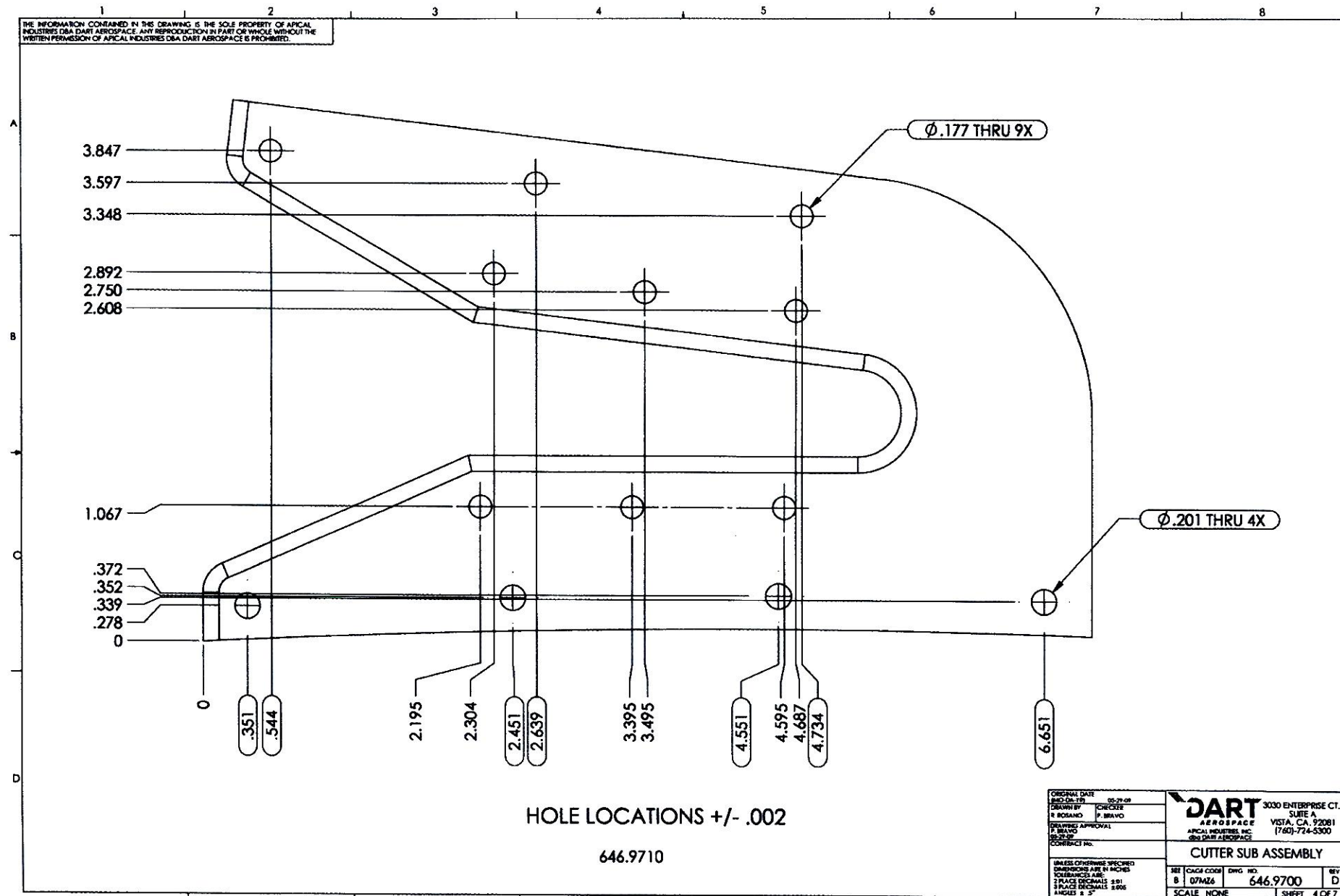


SECTION A-A $\frac{2}{C6}$

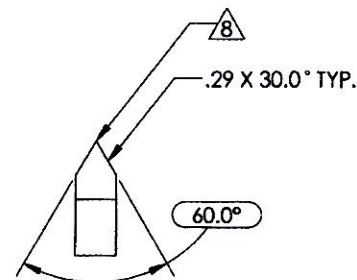
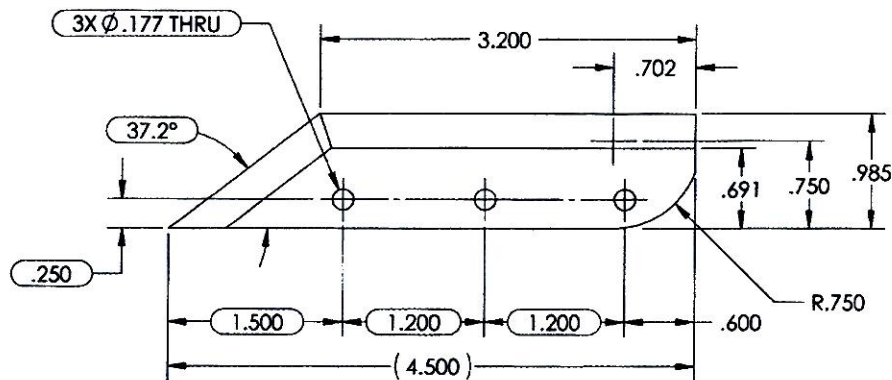
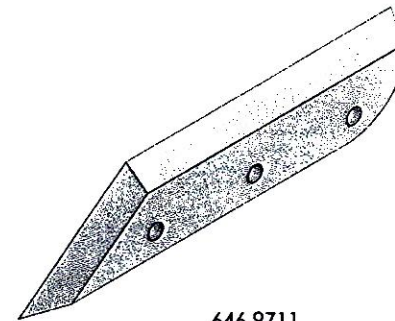
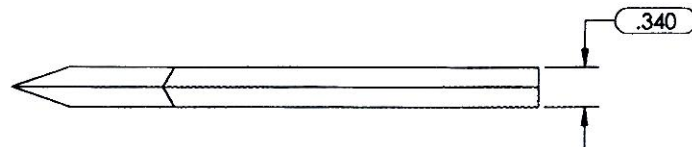
646.9710

ORIGINAL DATE 06-29-08		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY K. ROSSANO		CHECKED P. BRAVO	
DESIGNED BY P. BRAVO		APPROVED BY P. BRAVO	
CONTRACT NO.		CUTTER SUB ASSEMBLY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		REV B	QTY 07M26
SCALE NONE		DWG. NO. 646.9700	
		REV D	
		SHEET 3 OF 7	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DAA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DAA DART AEROSPACE IS PROHIBITED.



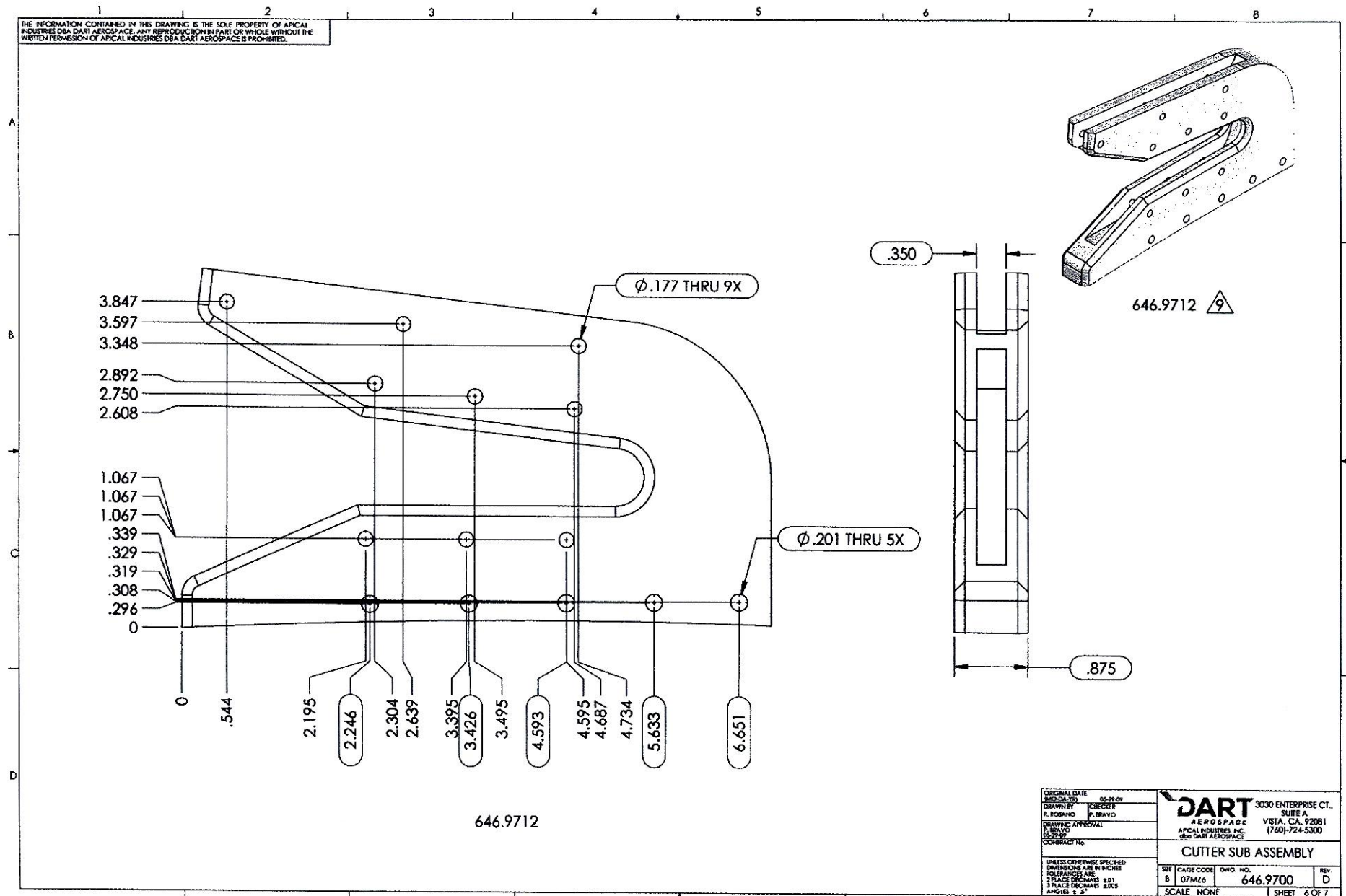
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APCAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APCAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



646.9711

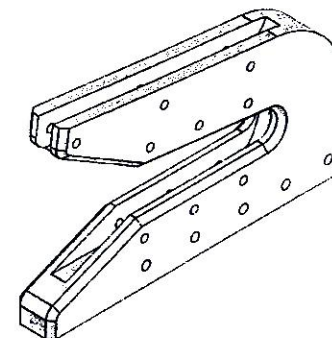
ORIGINAL DATE 2002-04-10		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY R. ROSANO	CHECKED BY P. BRAYO	DART AEROSPACE APCAL INDUSTRIES, INC. DBA DART AEROSPACE	
DESIGNED BY P. BRAYO	APPROVED BY P. BRAYO		
CONTRACT NO.		CUTTER SUB ASSEMBLY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.5°		REV. 1 B 07M26	REV. 2 D 646.9700
SCALE: NONE		SHEET 5 OF 7	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

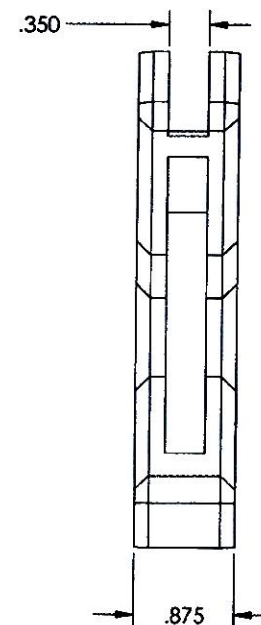
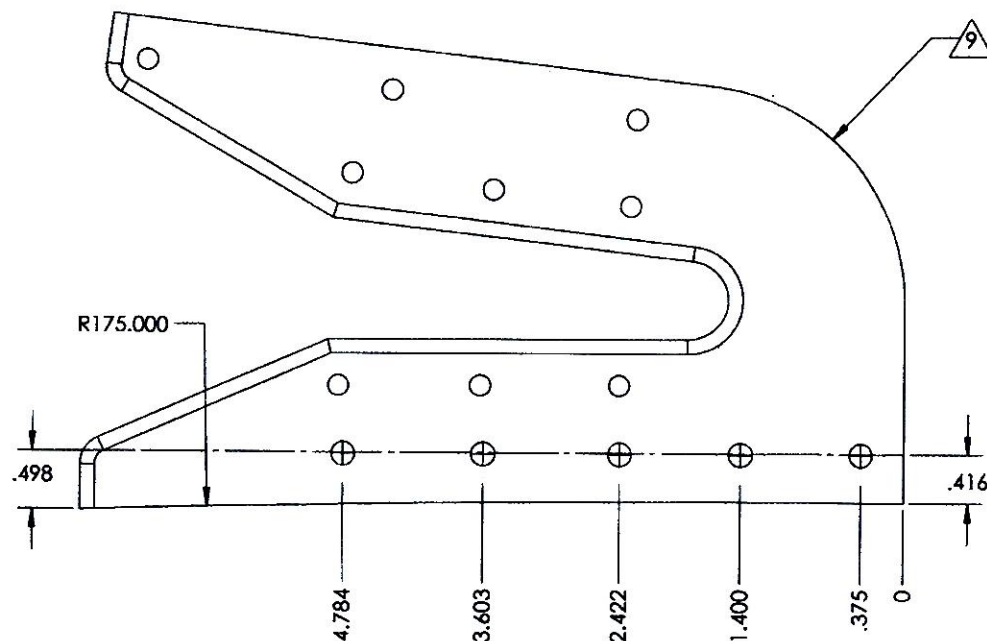


ORIGINAL DATE 05-29-07		3030 ENTERPRISE CT., SUITE A	
DRAWN BY R. ROSANO		VISTA, CA. 92081	
CHECKED BY P. BRAVO		(760)-724-5300	
DRAWING APPROVAL R. BRAVO		APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
DATE 05-29-07		CUTTER SUB ASSEMBLY	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS .010 ANGLES $\pm .5^\circ$		SHEET NO. 8	REV. D
		DWG. NO. 646.9700	
		SCALE: NONE	SHEET 6 OF 7

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APCAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APCAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



646.9713



ORIGINAL DATE: 03-20-09		3030 ENTERPRISE CT., SUITE A, VISTA, CA. 92081 (760)-724-5300	
DRAWN BY: J. KOSAKO	DESIGNED BY: P. BRAYO	DART AEROSPACE APCAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL:		CUTTER SUB ASSEMBLY	
CONTRACT NO.:		REV: B	REV: D
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: 2 PLACE DECIMALS ±.01; 3 PLACE DECIMALS ±.005; ANGLES ± 5°		SCALE: NONE	SHEET 7 OF 7